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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|----------------------|
| 10/668,147 | 09/22/2003 | Mark A. Cleveland | 024.0024 | 2780 |
| 29906 | 7590 | 04/06/2005 | | EXAMINER |
| | | | | RUDDOCK, ULA CORINNA |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/668,147 | CLEVELAND, MARK A. | |
| | Examiner | Art Unit | |
| | Ula C Ruddock | 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/22/03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date /.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Specification

1. The use of the trademarks Stesalit PN900, Cycom 5210LO, and HT50 have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

To describe physical or other properties of material by mere use of a trademark is objectionable since it has tendency to make trademark descriptive of product rather than leaving trademark to serve its traditional purpose, which is to identify product's source of origin.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5, 8, 11, 15, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 5, 8, 11, 15, and 17, the use of tradenames "HT50" and "V112" render the claims indefinite as to scope because it is not clear if the claims intend only materials sold under these tradenames at the time of applicant's invention, or whether materials with the same composition,

but sold under other tradenames are also included. Further, it is not clear if the claims are limited to materials sold under these tradenames in the future, when the composition may have been changed. It is not possible to determine the scope of these claims. Clarification is required. See *Ex parte Simpson and Roberts*, 218 USPQ 1020 (BdPatApp&Int 1982).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 9, 12, 13, 14, and 16 are rejected under 35 U.S.C. 102(b & e) as being anticipated by Obeshaw (US 2002/0006523). Obeshaw discloses vibration damping structural members. The structural member can be used in the transportation, aerospace, and defense industries in applications such as airplane components [0073]. The core region may be completely filled with any desired core material such as foam [0014]. The materials for inner section and outer section can comprise the same material [0015]. The materials for the inner or outer portions comprise any suitable composite material [0017]. The composites can be a reinforced resin matrix material [0018]. The resin can be an epoxy thermoset resin [0019] and the materials used to reinforce the resin matrix include graphite or carbon fibrous material [0021]. A damping layer can

be incorporated into the structural member [0042]. As seen in Figure 12, the damping layer (reference point 12) is seen adjacent to both the inner and outer portions. The damping layer can be a viscoelastic adhesive of various polymers [0045].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obeshaw (US 2002/006523), as shown above. Obeshaw disclosed the claimed invention except for the teaching that the low density core comprises a material having a thickness of about one quarter wavelength of a dominant frequency to which the acoustic composite construction or fairing may be exposed and that the low density core has a thickness of about 15-16 cm.

It should be noted that the thickness of the core is a result effective variable. The thickness of the core directly affects the vibration damping property of the composite. Therefore, it would have been obvious to have made the core comprise a material that has a thickness of about one quarter wavelength of a dominant frequency to which the acoustic composite construction or fairing may be exposed and to have made the low density core have a thickness of about 15-16 cm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present

invention, one would have been motivated to optimize the thickness of the core, motivated by the desire to create a composite with increased vibration damping properties and capabilities.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UCR

Ula Ruddock
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Primary Examiner
Tech Center 1700